MAREC
MID-ATLANTIC RENEWABLE ENERGY COALITION

September 16, 2013

VIA ELECTRONIC MAIL AND HAND DELIVERY

Alisa Bentley
Secretary
Delaware Public Service Commission
861 Silver Lake Boulevard
Cannon Building, Suite 100
Dover, DE 19904

Re: PSC Docket No. 12-544

Dear Ms. Bentley:

Enclosed for filing with the Commission are an original and ten (10) copies of the Comments of the Mid- Atlantic Renewable Energy Coalition on the Delmarva Power & Light Company's 2012 Integrated Resource Plan in the above-captioned docket.

Sincerely,

Bruce H. Burcat
Executive Director

cc: Service List

Enclosures

P.O. Box 385, Camden, DE 19934 Tel: 302-331-4639 E-mail: bburcat@marec.us

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF DELAWARE

IN THE MATTER OF INTEGRATED RESOURCE PLANNING FOR THE PROVISION OF STANDARD OFFER SERVICE BY DELMARVA POWER & LIGHT COMPANY UNDER 26 DEL. C §1007(c) & (d) (OPENED DECEMBER 6, 2012)	)))))	**PSC DOCKET NO. 12-544**

COMMENTS OF THE MID-ATLANTIC RENEWABLE ENERGY COALITION

The Mid-Atlantic Renewable Energy Coalition ("MAREC") submits these comments on the 2012 Integrated Resource Plan ("IRP") filed by Delmarva Power & Light Company ("Delmarva" or "Company"). MAREC appreciates the opportunity to comment on the IRP. In these comments, MAREC will address the following:

1. In assessing the need for compliance under Delaware's Renewable Portfolio Standard ("RPS")[1] the IRP does not adequately address the requirements under recent legislation allowing certain fuel cell projects to count towards the compliance requirements of the RPS, thereby causing an inappropriate application of solar renewable energy credits ("SRECs") to (non-solar) renewable energy credits ("RECs")

2. Delmarva wrongly assumes that the Company will meet the State's energy efficiency requirement of electricity savings equivalent to 15% of the 2007 electricity consumption by 2015, effectively reducing the number of RECs it claims it will need to satisfy the RPS.

[1] The RPS was implemented as a result of the enactment of the Renewable Energy Portfolio Standards Act, 26 *Del. C.* § 351 et seq. enacted in 2005 by Senate Bill No. 74..

3. Delmarva should consider a competitive request for proposal ("RFP") process as a mechanism to procure wind energy capacity and the associated RECs through long-term contracts to help ensure cost-effective compliance with the RPS and provide the Company and its ratepayers with the additional security of long-term stable pricing for a portion of the state's energy portfolio.

I. INTRODUCTION

MAREC is a nonprofit organization that was formed to help advance the opportunities for renewable energy development in a substantial portion of the region where the Regional Transmission Organization, PJM Interconnection, LLC ("PJM"), operates. MAREC's footprint includes Delaware, Ohio, New Jersey, Pennsylvania, Maryland, Virginia, West Virginia, North Carolina, and the District of Columbia. MAREC's membership consists of wind developers, wind turbine manufacturers, service companies, nonprofit organizations and a transmission company dedicated to the growth of renewable energy technologies to improve our environment, boost economic development in the region, and diversify our electric generation portfolio thereby enhancing energy security. The primary areas of focus of MAREC are to work with state regulators to develop rules and supportive policies for renewable energy; provide education and expertise on the environmental sustainability of wind energy; and offer technical expertise and advice on integrating variable wind energy resources into the electric grid. Many of the wind turbines that have been installed regionally have been manufactured by MAREC members. MAREC members are committed to significant growth in renewable energy technologies to support economic development in the region while helping meet Delaware's

legislative mandate for renewable energy through the RPS and similar mandates in other jurisdictions in the region.

II. BACKGROUND

Under the RPS, Delmarva is required to procure an annually increasing amount of its energy from renewable resources to serve its Standard Offer Service ("SOS") customers. In compliance year 2013, it is required to purchase a minimum of 10.0% of its supply for SOS customers from these resources with that percentage increasing to 25% by 2025. In compliance year 2013, 0.6% of the supply procured by Delmarva for the SOS customers must come from solar photovoltaic resources and increases to 3.5% by the 2025 compliance year. Pursuant to 26 Del. C. § 352(6), "eligible energy resources" that can be used for compliance with the RPS includes electricity derived from wind, geothermal, and solar electric technology, and a number of other technologies typically considered renewable technologies, such as energy derived from ocean waves and biomass that has been cultivated in a sustainable manner, but not energy derived from a waste-to-energy facility.

When enacting the RPS in 2005, the General Assembly declared that the "benefits" of renewable energy accrued to the public. The General Assembly defined these benefits to include, "improved regional and local air quality, improved public health, increased electric supply diversity, increased protection against price volatility and supply disruption, improved transmission and distribution performance, and new economic development opportunities."[2]

In 2006, after it was determined that Delmarva customers would be seeing increases in their electricity rates in excess of 60% after rate caps were removed as part of the electric

[2] 26 Del. C. §351(b)

restructuring process, the General Assembly moved resolutely to pass the Electric Utility Retail Customer Supply Act of 2006 ("EURCSA"), which among other things reinstituted integrated resource planning for Delmarva and also authorized Delmarva, subject to Commission approval, to enter into long-term contracts for procurement of power.[3] These contracts could be approved as part of the integrated resource planning process or through a separate application process. Costs for these contracts could be approved by the Commission and included in the rates charged to SOS customers. In developing its IRP, Delmarva is asked to consider, "resources that provide short- or long-term environmental benefits to the citizens of the State (such as renewable resources like solar or wind power);" "resources that promote fuel diversity;" and "resources that encourage price stability" (26 Del. C. § 1007(c)(1)(b)). In fact, by passing the EURSCA the General Assembly recognized the need to immediately have a process to obtain long-term contracts for the purpose of stabilizing prices.[4] In 2010, the General Assembly strengthened the RPS law when it increased and extended the law's requirements for the minimum percentage of renewable energy procurement.[5]

In July 2011, Senate Bill No. 124 was enacted amending the RPS by permitting Delmarva to count the energy produced from a "qualified fuel cell provider project" towards the compliance requirements of the RPS. The bill was enacted as part of a package offered by the State to incentivize Bloom Energy, a fuel cell manufacturer, to develop a manufacturing facility in Delaware, which the State maintained would lead to the creation of at least 900 direct jobs

---

[3] See 26 Del. C. § 1007(b) and (c)

[4] See 26 Del. C. § 1007(d). "As part of the initial IRP process, to immediately attempt to stabilize the long-term outlook for standard offer supply in the DP&L service territory, DP&L shall file on or before August 1, 2006, a proposal to obtain long-term contracts."

[5] See Senate Substitute No. 1 for Senate Bill No. 119 from the 145th General Assembly. http://delcode.delaware.gov/sessionlaws/ga145/chp451.shtml

at the plant. Under the bill, Delmarva is permitted to fulfill the equivalent of 1 REC for each megawatt-hour of energy purchased from qualified fuel cell provider project.[6] In addition, Delmarva also has the ability to use the energy output produced by the Fuel Cell Project to fulfill no more than 30% of its SREC requirements at a ratio of 6 MWh of RECs per 1 MWh of SRECs. Section 353(d)(1)(b) of Title 26 in the Delaware Code gives the Secretary of the Department of Natural Resources and Environmental Control ("DNREC") discretion, in coordination with the Commission and Delmarva, to adjust the statutory allowances for the partial fulfillment of Delmarva's obligations towards the RPS standard. In testimony before the Commission in the docket to approve a tariff to implement a surcharge on Delmarva customers for the Bloom Energy project, Collin O'Mara, the Secretary of DNREC, proposed that in order to lower the cost impact of the fuel cell project, Delmarva should be able to fulfill the equivalent of 2 RECs for each megawatt hour of energy produced during the first 15 years the qualified fuel cell project is placed into service.[7] Secretary O'Mara also proposed that Delmarva not be able to fulfill more than 25% of its SREC compliance requirements with the output of the project in years 1-5; 30% in years 6-15 and 35% in years 15-21 of the project. The Commission adopted the adjustments proposed by the DNREC Secretary in its decision approving the tariff.[8]

Also impacting Delmarva's responsibility under the RPS is Delaware's Energy Efficiency Resource Standards Act of 2009 ("EERS"), which in part requires Delmarva to meet the State's goal of electricity savings equivalent to 15% of the 2007 electricity consumption by 2015.[9] While the EERS is not a direct relationship to the RPS requirements that Delmarva must meet,

---

[6] 26 Del. C. § 353(d)(1).
[7] *In the Matter of the Application of Delmarva Power and Light Company for Approval of Qualified Fuel Cell Provider Tariffs*, PSC Docket No. 11-362, Finds Opinion and Order No. 8079, dated December 1, 2011 at 16.
[8] *Id* at 28.
[9] 26 Del. C. § 1502(a)(1).

to the extent that there is electricity savings as a result of this requirement, lower electricity consumption in a year as a result of compliance with the EERS would reduce the number of RECs needed to comply with the RPS in that year. Although the legislation required that regulations be promulgated by DNREC no later than July 29, 2010, regulations have yet to be issued. Among a number of other important considerations required by the EERS, these regulations were to cover energy efficiency measurement and verification standards; how affected energy providers, like Delmarva, would demonstrate, document and report their compliance with the energy savings goals; detailed procedures and standards concerning what energy efficiency measures count toward compliance; the useful lives of energy efficiency measures; and how to adjust for differences between the base and current years to account for weather, population, programmatic changes.[10] Notwithstanding that there are no formalized measurement and verification standards, etc., Delmarva makes the assumption that it will meet the 15% EERS goal by 2015.

Since Delmarva's 2010 IRP filing, there have been three changes that have transpired that have significant impacts on Delmarva's ability to meet its RPS requirements:

1. In 2011, with the passage of Senate Bill No. 124 as amended by Senate Amendment No. 1, Delmarva Power became responsible for obtaining RECs and SRECs to comply with the State RPS standards for all distribution customers.
2. As described above, legislation also allowed energy produced by Bloom Energy's fuel cells to fulfill a portion of Delmarva's renewable portfolio standards for both RECs and SRECs.

[10] 26 Del. C. § 1504(a).

3. The Bluewater Wind Project was put on hold by its parent company, NRG. According to page 28 of Delmarva's IRP, in January of 2012, NRG terminated the power purchase agreement with Delmarva and announced that active development of its offshore wind projects would be placed on hold. While Delmarva did not model the Bluewater project as a part of the IRP Reference case, the Company's IRP does include a sensitivity analysis of a generic offshore wind facility.

In order to meet its RPS requirements, Delmarva, with Commission approval, has executed several of long-term power purchase agreements ("PPAs") for energy and/or RECs/SRECs from renewable resources.[11] According to Delmarva's IRP on page 15, "Delmarva Power has created a portfolio of renewable resources that when supplemented with REC and SREC offsets from the Bloom Energy project and spot market purchases, will assure compliance with RPS". Currently, Delmarva has three long-term contracts with wind generators:

- AES Armenia Mountain for up to 50 MW of wind resources. Delmarva executed this 15 year PPA on June 6, 2008.
- Gestamp Roth Rock for up to 40 MW of wind resources. Delmarva executed this 20 year PPA on May 30, 2008.
- enXco Chestnut Flats for up to 38 MW of wind resources. Delmarva executed this 20 year PPA on May 30, 2008.

[11] (1) DE PSC Docket No 10-198 In the Matter of the Application of Delmarva Power and Light Company for Approval of Solar Renewable Energy Credit Contracts as SREC Supply Sources for Standard Offer Service Customers. (2) DE PSC Docket No. 11-399 In the Matter of the Application of Delmarva Power and Light Company for Approval of a Pilot Program for the Procurement of Solar Renewable Energy Credits. (3) DE PSC Docket No. 12-256 In the Matter of the Application of Delmarva Power and Light Company for Approval of the 2013 Program for the Procurement of Solar Renewable Energy Credits. DE PSC Docket No. 08-205 In the Matter of the Application of Delmarva Power & Light Company for Approval of Land-Based Wind Contracts as a Supply Source for Standard Offer Service Customers.

The three wind contracts Delmarva has in place were all originally entered into in 2008, which was 5 years ago, and under very different pricing of what an RFP would result in today due to the industry's increasing technological efficiencies. Delmarva has not planned for any additional procurement of wind energy capacity through long-term contracts to help meet its RPS compliance requirements or to act as a hedge against the price volatility that can occur from over-reliance on traditional fuel resources, like natural gas and coal, and to take advantage of federal tax credits that could expire.

Table 7, on page 99 of the IRP, provides an overview of what the Company predicts will be its net RPS REC position during the IRP planning horizon. Table 7 has been recreated below:

Table 7

Bloom Impact on Delmarva Power's Projected Net RPS Position

Compliance Year	REC Requirement	Bloom ERECs	Contracted REC Supply	Net Position
2013/14	634,894	218,181	359,792	-56,922
2014/15	723,464	353,595	362,634	-7,235
2015/16	786,979	504,576	363,387	80,984
2016/17	863,116	504,576	364,360	86,803
2017/18	957,265	504,576	359,284	-6,602
2018/19	1,037,255	504,576	359,158	-173,521
2019/20	1,095,569	504,576	359,034	-231,959
2020/21	1,129,223	504,576	358,909	-265,738
2021/22	1,172,483	504,576	358,786	-309,121
2022/23	1,215,683	504,576	358,663	-352,444

As this table shows, the Company is forecasting a REC deficiency in compliance years 2013/14 through 2014/15, and then is projecting to experience a REC surplus in compliance years 2015/16 through 2016/17, only to be followed an increasing REC deficit, which is forecasted to begin in compliance year 2017/18.

III. DELMARVA'S REC COUNT IS CONSIDERABLY OVERSTATED AS A RESULT OF MISPLACED ASSUMPTIONS RELATED TO BLOOM FUEL CELLS AND COMPLIANCE WITH THE EERS

A. The Bloom Fuel Cell Adjustment

Table 5, on page 98 of the IRP, shows Delmarva's assumptions with respect to the Bloom Energy non-solar and solar REC offsets. The chart is based on energy produced from a 3 MW fuel cell facility at Delmarva's Brookside Substation, which was operational on June 18, 2012, and a 27 MW facility located near Delmarva's Red Lion Substation, which will be phased in by September 30, 2014 – both Bloom Energy developed facilities. What is indicated on the chart (reproduced below) is Delmarva's assumption that in 2013/2014 and in 2014/2015 it will utilize the RECs associated with the generation projected from Bloom Energy facilities to offset both their SREC and REC (solar and non-solar) RPS requirements for those years.

Table 5
Bloom Energy

Non Solar and Solar REC Offsets

Compliance Year	Projected Bloom Generation (MWH)	SREC Offsets (ESRECs)	REC Offsets (ERECs)
2013/14	166,230	9,523	218,181
2014/15	252,288	12,582	353,595
2015/16	252,288	0	504,576
2016/17	252,288	0	504,576
2017/18	252,288	0	504,576
2018/19	252,288	0	504,576
2019/20	252,288	0	504,576
2020/21	252,288	0	504,576
2021/22	252,288	0	504,576
2022/23	252,288	0	504,576

However, beginning in 2015/2016, all of the RECs associated with the generation projected from the Bloom Energy projects will be allocated to offset the non-solar REC requirements, thereby leaving a substantial undersupply of SRECs to meet the compliance requirements, but amounting to a 504,576 REC offset for every year of the remainder of the planning horizon of the IRP for the non-solar REC requirements. In essence, Delmarva would apply Bloom RECs to reduce the need for renewable energy resources like wind, which are the most cost-effective of renewables. This assumption would have the corollary effect of increasing the already substantial deficiency in SRECs needed for compliance with the solar energy requirements of the RPS. MAREC understands that there is a 1 to 6 ratio of SRECs to RECs in the RPS legislation regarding output from a qualified fuel cell project. However, that ratio is a reflection of the significant cost differences in solar versus many non-solar renewable technologies, like wind.

While Delmarva states on page 97 of the IRP that it made this assumption based on Secretary O'Mara's testimony in the Qualified Fuel Cell Provider Tariff docket (PSC Docket No. 11-362) cited above, it notes that a determination of the actual offsets for each year will be made by DNREC. Secretary O'Mara's actual testimony in that proceeding on the subject is as follows:

> "The annual application of the equivalent of RECs and SRECs would be determined through a process established by the Commission in consultation with Delmarva and the DNREC with priority given to minimizing customer impacts, avoiding Alternative Compliance Payments and ensuring sufficient opportunity for in-state renewable energy economic development."[12]

[12] Testimony, Colin O'Mara Secretary of DNREC at 6-7 (DE PSC Docket No. 11-362; Filed August 19, 2011), http://depsc.delaware.gov/electric/DPL%20Fuel%20Cell%20Direct%20Testimony.pdf

Based on that testimony, there is no predetermined course for applying the RECs and SRECs in any particular way. MAREC strongly believes that such an assumption by Delmarva to allocate all of the RECs from the Bloom Energy projects to non-solar compliance is unreasonable and needs to be corrected. Given the cost of solar energy technologies, Delmarva should be required to recalculate the offsets based on a more even distribution of the Bloom Energy RECs, because it is truly unknown at this time what the allocation would be as REC/SREC pricing continues to evolve across PJM. It should be noted that during the IRP workshop process, Delmarva calculated the full solar allocation for Bloom (no more than 25% of the solar requirements in years 1-5 and 30% in years 6-15) to see what the net RPS position would be as a result of this change. Not surprisingly, the net solar position for SRECs showed a much smaller deficiency in each of the years out to 2023 and a significant deficiency for most of the out years for non-solar RECs. If this change were made to the IRP, then the Company would no longer be over-subscribed for non-solar RECs in compliance years 2015/2016 and 2016/2017 as was shown on Table 7 of page 99 of the IRP shown above.[13]

B. <u>Compliance with the EERS</u>

In the IRP, Delmarva has made a confounding leap of faith by assuming that it would satisfy the requirements of the EERS by achieving the State's goal of electricity savings equivalent to 15% of the 2007 electricity consumption by 2015 and remain in compliance throughout the planning horizon.[14] As previously noted, regulations to implement the EERS were to be promulgated by July 2010. However, to date MAREC understands that no

[13] Delmarva's Tables 5, 6 and 7 from May 1, 2013 IRP workshop included in Attachment A hereto.
[14] IRP at 48.

proceeding to address these regulations has ever been instituted. Consequently, there are no regulations to address all of the detailed requirements of the EERS, such as:

1. Measurement and verification standards;
2. How Delmarva would report and demonstrate compliance with the energy efficiency goals;
3. What energy efficiency measures can be counted toward compliance;
4. Accounting for the useful life of measurements;
5. Necessary adjustments to the base and current years to account for changes in weather, population, previously employed measures, etc.;
6. Standardized determination of baselines for energy efficiency projects, and
7. Other detailed requirements of 26 Del. C. § 1504(a) of the EERS.

Without the regulations, there is no demonstrable way that Delmarva could even suggest that it could be in compliance with the EERS in 2015 and thereafter. Moreover, it became apparent during the IRP workshops that were conducted by Delmarva in conjunction with this matter that it was very unlikely that Delmarva was on schedule to meet this very lofty goal, even if there was a clear regulatory process to demonstrate compliance as envisioned by the EERS. The very likely inability of Delmarva to meet the 15% energy efficiency target of the EERS would present a dramatic change in the REC requirements for 2015, as the IRP would indicate a much higher level of supply needed to serve the Delmarva SOS load.

During an IRP workshop held on May 1, 2013, Delmarva provided a slide indicating that if it revises the IRP to include a low energy efficiency case where it failed to meet the 15% EERS target in 2015 and did not meet it until the 2022/2023 compliance year, then an additional

140,000 RECs and 6,600 SRECs would be needed by 2015 to satisfy the RPS.[15] In this case, each compliance year for the RPS (both solar and non-solar) would be undersubscribed. Compounding this REC deficiency is the Bloom Energy fuel cell adjustment that we believe is also required. Adding the 140,000 REC deficiency to Delmarva's net position for the 2015/2016 compliance year reflected in Table 7 in Attachment A hereto, which is Delmarva's calculation of the Bloom fuel cell impact on Delmarva's projected net RPS position assuming a full solar allocation for Bloom, would change the net REC deficiency from 100,624 to a **net deficiency of 240,624**. This change is a far cry from Delmarva's IRP forecast of a net surplus of 80,984 from its Table 7 found on Page 99 of the IRP.

Delmarva has stated in its IRP that it will meet any unfulfilled RPS compliance requirements by purchasing RECs in the spot market. Although some purchases on the spot market may be a reasonable strategy, it is apparent to MAREC that given the flawed assumptions utilized by Delmarva to account for Bloom Energy and compliance with the EERS, the level of need beginning in 2015 merits a longer term strategy than envisioned in the IRP. Additionally, the price of a PJM REC has moved from $2/REC in 2012 up to $15/REC in 2013; purchasing spot RECs puts ratepayers at risk of wildly divergent REC prices.

[15] See slide in Attachment A hereto titled "Effects of Key Drivers."

IV. MAREC PROPOSAL FOR A COMPETITIVE RFP PROCUREMENT FOR WIND ENERGY AND THE ASSOCIATED RECS THROUGH LONG-TERM CONTRACTING

MAREC proposes as it did in its Comments on Delmarva's 2010 IRP that Delmarva include a provision in its IRP for an RFP process that would solicit at least 100 MW of new wind energy capacity through long-term contracting for energy and RECs. A long-term strategy, especially in the context of the IRP process, makes economic sense. Long-term procurements of renewable energy through an RFP process would act as a hedge against price volatility and be a competitive tool utilized to help meet Delmarva's present and future RPS requirements. These contracts enable projects to be financed at more advantageous financing terms, which also benefits ratepayers. As previously discussed, when the Delaware General Assembly passed EURSCA, it recognized the need of long-term contracts for the purpose of reducing price volatility and as a tool to stabilize pricing. Benefits from such an arrangement would include long-term price certainty, since wind generators (unlike traditional generators) do not have fuel costs and minimal production costs. There would be no price volatility with wind, as the price of the energy and RECs during the term of the contract would essentially be fixed; whereas market changes could cause drastic price swings with traditional resources, like natural gas and coal.

It has been over five years since Delmarva has issued an RFP for new wind capacity. Since that time, there have been substantial economic and policy market changes that have occurred. Notably, in January 2013, Congress extended the Production Tax Credit (PTC), which has been a significant driver behind wind energy development by reducing the costs of projects. The PTC was set to expire on December 31, 2012. However, Congress passed legislation that

revised the PTC by removing the "placed in service" deadlines and replacing them with deadlines that use the beginning of construction as a basis for determining facility eligibility for the PTC and extended the deadline for wind energy facilities to qualify for the PTC by one year, from December 31, 2012 to December 31, 2013 and effectively allowing projects built in 2014 and 2015 to continue to have the Production Tax Credit. In the Reference Case in the IRP, the Company's model expected the PTC to expire December 31, 2012. Now that the credit has been extended, there are new opportunities available for Delmarva to explore that might not have been previously considered in its planning process. Additionally, the PTC has had a history of being in place and then removed; for scenario planning, Delmarva should have as its reference case the PTC being in effect.

The proposed procurement process would be competitive, open, and transparent. Of course, any RFP process should include safeguards to ensure that the process was truly competitive and that the goals and objectives of the procurement were achieved. MAREC recommends that a working group be convened by the Commission to help address any technical issues posed by the RFP process and procurement and to provide recommendations on any safeguards that should be implemented.

V. CONCLUSION

For the reasons stated herein, MAREC respectfully requests that the Commission direct Delmarva to correct the flawed assumptions related to the allocation of RPS offsets derived from the Bloom Energy fuel cell projects and compliance with the EERS. Given the substantial understatement of the yearly deficiencies in non-solar RECs for compliance with the RPS as a result of these flawed assumptions, MAREC believes it is appropriate and timely for Delmarva to issue a competitive RFP for an at least 100 MW of new wind energy capacity through long-term contracting.

Respectfully submitted,

Bruce H. Burcat, Esq.
Executive Director
Mid-Atlantic Renewable Energy Coalition
208 Stonegate Way
Camden, DE 19934
(302) 331-4639
Email: bburcat@marec.us

Dated: September 16, 2013

Attachment “A”

IRP 2012
RPS Overview

5/1/2013

Table 5
Projected Bloom Energy
Non Solar and Solar REC Offsets

Complinace Year	Projected Bloom Generation (MWH)	SREC Offsets (ESRECs)	REC Offsets (ERECs)
2013/14	166,230	9,523	218,181
2014/15	252,288	12,582	353,595
2015/16	252,288	0	504,576
2016/17	252,288	0	504,576
2017/18	252,288	0	504,576
2018/19	252,288	0	504,576
2019/20	252,288	0	504,576
2020/21	252,288	0	504,576
2021/22	252,288	0	504,576
2022/23	252,288	0	504,576

Table 5 (Full Solar Allocation)
Projected Bloom Energy
Non Solar and Solar REC Offsets

Complinace Year	Projected Bloom Generation (MWH)	SREC Offsets (ESRECs)	REC Offsets (ERECs)
2013/14	166,230	9,523	218,181
2014/15	252,288	12,582	353,595
2015/16	252,288	15,134	322,968
2016/17	252,288	18,602	281,358
2017/18	252,288	26,923	181,501
2018/19	252,288	31,118	131,166
2019/20	252,288	34,597	89,413
2020/21	252,288	38,111	47,243
2021/22	252,288	41,874	2,084
2022/23	252,288	42,048	0

Table 6 (With Full Solar Allocation for Bloom)

Bloom Impact on Delmarva Power's Projected Net Solar Position

	Complinace Year	SREC Requirement	Bloom ESRECs	Contracted SREC Supply	Net Position
2013	2013/14	38,093	9,523	25,598	-2,972
2014	2014/15	50,327	12,582	28,440	-9,305
2015	2015/16	60,536	15,134	29,193	-16,209
2016	2016/17	74,406	18,602	30,166	-25,638
2017	2017/18	89,743	26,923	25,090	-37,730
2018	2018/19	103,725	31,118	24,964	-47,643
2019	2019/20	115,323	34,597	24,840	-55,886
2020	2020/21	127,037	38,111	24,715	-64,210
2021	2021/22	139,581	41,874	24,592	-73,115
2022	2022/23	151,960	42,048	24,469	-85,443

Table 7 (With Full Solar Allocation For Bloom)

Bloom Impact on Delmarva Power's Projected Net RPS Position

Complinace Year	REC Requirement	Bloom ERECs	Contracted REC Supply	Net Position
2013/14	634,894	218,181	359,792	-56,922
2014/15	723,464	353,595	362,634	-7,235
2015/16	786,979	322,968	363,387	-100,624
2016/17	863,116	281,358	364,360	-217,398
2017/18	957,265	181,501	359,284	-416,480
2018/19	1,037,255	131,166	359,158	-546,931
2019/20	1,095,569	89,413	359,034	-647,122
2020/21	1,129,223	47,243	358,909	-723,071
2021/22	1,172,483	2,084	358,786	-811,612
2022/23	1,215,683	0	358,663	-857,020

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER OF INTEGRATED RESOURCE PLANNING FOR THE PROVISION OF STANDARD OFFER SERVICE BY DELMARVA POWER & LIGHT COMPANY UNDER 26 DEL. C. §1007(c) & (d) (OPENED December 6, 2012)	)))))	**PSC DOCKET NO. 12-544**

CERTIFICATION OF SERVICE

I hereby certify that a true copy of the foregoing Comments of the Mid-Atlantic Renewable Energy Coalition was served via electronic mail this 16st day of September, 2013, to the attached service list.

Bruce H. Burcat

Bruce H. Burcat

SERVICE LIST
DP&L'S 2012 INTEGRATED RESOURCE PLAN
PSC Docket No. 12-544
As of 09/10/13

Hearing Examiner	**PSC Staff**
Mark Lawrence Delaware Public Service Commission 861 Silver Lake Blvd., Suite 100 Dover, Delaware 19904 Tel: 302-736-7540 Fax: 302-739-4849 Email: mark.lawrence@state.de.us	Alisa Bentley, Secretary to the Commission Delaware Public Service Commission 861 Silver Lake Blvd., Suite 100 Dover, Delaware 19904 Tele: 302-736-7511 Fax: 302-739-4849 Email: alisa.bentley@state.de.us
PSC Staff	**PSC Staff**
Janis Dillard, Deputy Executive Director Delaware Public Service Commission 861 Silver Lake Blvd., Suite 100 Dover, Delaware 19904 Tel: 302-736-7542 Fax: 302-739-4849 Email: Janis.dillard@state.de.us E-Mail distribution only: Bob Howatt, Executive Director Email: bob.howatt@state.de.us	Connie McDowell, Sr. Reg Policy Admin. Pamela Knotts, Regulatory Policy Admin. John Farber, Public Utilities Analyst Delaware Public Service Commission 861 Silver Lake Blvd., Suite 100 Dover, Delaware 19904 Neidig Tel: 302-736-7537 Knotts Tel: 302-736-7541 Farber Tel: 302-736-7565 Fax: 302-739-4849 Email: susan.neidig@state.de.us John.farber@state.de.us pamela.knotts@state.de.us
PSC Staff Counsel	**PSC Staff Counsel**
James McC. Geddes, Esquire Ashby & Geddes 500 Delaware Avenue, Suite 800 P.O. Box 1150 Wilmington, DE 19899 Tel: 302-654-1888 Fax: 302-654-2067 E-mail: jgeddes@ashby-geddes.com jamesgeddes@mac.com	Julie (Jo) M. Donoghue, Esquire Deputy Attorney General Delaware Department of Justice 820 North French Street, 6th Floor Wilmington, DE 19801 Tel: 302-577-8348 (Wilmington) Tel: 302-736-7558(Dover) Fax: 302-739-4849 Email: jo.donoghue@state.de.us

Division of the Public Advocate	**Div. of the Public Advocate – Counsel**
David Bonar Public Advocate Division of the Public Advocate John G. Townsend Building 401 Federal Street, Suite 3 (SOS) Dover, DE 19901 Tel: 302-857-3660 Fax: 302-739-4111 E-mail: david.bonar@state.de.us Ruth Ann Price Deputy Public Advocate Division of the Public Advocate 820 North French Street, 4th Floor Wilmington, DE 19801 Tel: 302-577-5014 Fax: 302-577-3297 Email: ruth.price@state.de.us	Regina A. Iorii, Esq. Deputy Attorney General Division of the Public Advocate 820 North French Street Wilmington, DE 19801 Tel: 302-577-8159 Fax: 302-577-3297 Email: regina.iorii@state.de.us
Division of the Public Advocate	**Div. of the Public Advocate – Consultant**
Andrea B. Maucher Division of the Public Advocate John G. Townsend Building 401 Federal Street, Suite 3 (SOS) Dover, DE 19901 Phone: 302-857-4620 Fax: 302-739-4111 Email: andrea.maucher@state.de.us	
Delmarva Power & Light Company	**Delmarva Power & Light Company**
Todd L. Goodman, Esquire Associate General Counsel Pepco Holdings Inc., Legal Services P.O. Box 6066 Mailstop 92DC42 Newark, DE 19714-6066 Overnight Mail: 500 North Wakefield Drive Mailstop 92DC42 Newark, DE 19702	Jack Barrar PHI-Delmarva Power – Edison Place 701 Ninth Street, NW, 9th Floor , Room 9200 Washington, D.C. 20068 Tel: 202-872-3425 Email: jebarrar@pepco.com Email distribution only: bill.mitchell@pepcoholdings.com Mario.Giovannini@Delmarva.com chknapp@pepco.com mark.finfrock@pepcoholdings.com

Tel: 302-429-3786 Fax: 302-429-3801 Email: todd.goodman@pepcoholdings.com	gary.stockbridge@pepcoholdings.com wrswink@pepco.com rjreuter@pepco.com lisa.pfeifer@pepcoholdings.com wlmcnealy@pepco.com; spreavey@pepcoholdings.com slsunderhauf@pepco.com diana.deangelis@pepcoholdings.com mscheller@icfi.com bob.collacchi@pepcoholdings.com
INTERVENORS	
Caesar Rodney Institute	**Calpine Mid-Atlantic Energy, LLC**
David T. Stevenson Director, Center for Energy Competitiveness Caesar Rodney Institute P.O. Box 795 Dover, DE 19903 Tele: 302- 236-2050 Fax: 302- 645-9017 Email: davidstevenson@caesarrodney.org	Steven Schleimer, Vice President Government and Regulatory Affairs Calpine Corporation 500 Delaware Avenue, Suite 600 Wilmington, Delaware 19801 Tel: 302-468-5326 Fax: 302-468-5401 E-mail: steven.schleimer@calpine.com
Mid-Atlantic Renewable Energy Coalition	**Delaware Chapter of the Sierra Club**
Bruce H. Burcat, Esq. Executive Director Mid-Atlantic Renewable Coalition 208 Stonegate Way Camden, DE, 19934 Tel: 302-331-4639 Fax: 302-697-6852 (call first) Email: bburcat@marec.us	Andrew R. Groff Executive Committee Member Delaware Chapter of the Sierra Club 503 Rothbury Road Wilmington, DE 19803 Tel: (302) 476-9500 Email: andrewgroff@verizon.net
Department of Natural Resources & Environmental Control	**Department of Natural Resources & Environmental Control - Counsel**
Thomas G. Noyes Division of Energy & Climate Delaware Department of Natural Resources and Environmental Control 1203 College Park Drive, Suite 101 Dover, DE, 19904 Tel: 302-735-3356 Fax: 302-739-1840	Ralph K. Durstein III Deputy Attorney General Carvel State Office Building 820 N. French St. Wilmington, DE 19801 Tel: 302-577-8510 Fax: 302-577-5866 E-mail: ralph.durstein@state.de.us

E-mail: thomas.noyes@state.de.us	
Delaware Sustainable Energy Utility	**Delaware Sustainable Energy Utility - Consultant**
Anthony J. DePrima, Executive Director Delaware Sustainable Energy Utility 109 South State Street Dover, DE 19901 Tel: 302-883-3038 Cell: 302 270-6246 Fax: 302-736-9717 Email: tony.deprima@deseu.org	Sarah Buttner Principal, Energy Transition Consulting LLC 11 Firechase Circle Newark, DE 19711 Tel: 302-286-1118 Email: energytransition@comcast.net